

Appendix A is a marked-up copy of the amended claims and Appendix B is a clean copy of the amended claims.

**REMARKS**

Claims 1, 3-4, 10-12 and 16 are presently pending in the captioned application with claim 1 amended, new claim 16 added and claims 2 and 13-15 deleted without prejudice or disclaimer as to the subject matter contained therein.

Claim 1 has been amended in response to the Examiner's suggestion that processes critical for producing the grounds "should be claimed in the [in]dependent claim." See paragraph 7 of the Final Office Action. Support for the limitation can be found in now deleted claim 13.

New method claim 16 is added to provide a separate ground for patentability, namely a method of extracting flavor from waste coffee grounds. Support can be found in the specification at page 1, lines 25-28 and 35-36.

No new matter within the meaning of §132 has been added by any of the amendments.

Finally, Applicants submit herewith a courtesy copy of U.S. Patent No. 6,337,098 ("Spencer et al.") for informational purposes only. Since Spencer et al. is only being submitted to establish what is known in the art and not as a reference material to the

patentability of the presently claimed invention, an Information Disclosure Statement is not required.

Accordingly, Applicants respectfully request the Examiner to enter the claim amendments and reconsider and allow all claims pending in this application in view of the following arguments and amendments.

1. Rejection of Claims 1-4, 10 and 12-15  
under 35 U.S.C. §103(a)

The Office Action states that claims 1-4, 10 and 12-15 are rejected over Papazian in view of U.S. Patent No. 5,329,708 ("Rizzi et al.") for the reasons set forth in the last Office Action.

However, the reasons are not set forth in the last Office Action of December 10, 2001, but rather in Paper no. 7 mailed on November 05, 1999. Applicants further note that Paper no. 7 references a U.S. Patent No. 5,008,125 rather than a U.S. Patent No. 5,329,708 as suggested by the outstanding Office Action.

Therefore, for purposes of responding to the outstanding Official Action, Applicants will presume that the Examiner referenced the reasons set forth in Paper no. 7 and that a U.S. Patent No. 5,328,708 is cited. Paragraphs 12-17 of Paper no. 7 state:

Papazian teaches that cited above. He does not teach obtaining the coffee flavor and aromas from spent coffee grounds. While

Papazian does not state what type of yeast was used to produce his alcoholic beverage, the use of wine yeast is notoriously well known in the production of high alcohol beverages.

Rizzi et al teach the use of defatted spent coffee grounds that are used to absorb bitter coffee flavors and burnt coffee aromas, whereby, after said flavors and aromas are absorbed by said spent grounds, the adsorbent is added to roasted ground coffee. (Abstract). The spent coffee is defatted with a solvent such as ethanol, (col. 6, lines 6-15). The spent coffee "is inexpensive, unadulterating, [and] tasteless" (col. 3, lines 6-9). The spent coffee can originate from an instant coffee process (col. 3, line 67 to col. 4, line 2). It would have been obvious to those of ordinary skill in the art to produce alcoholic coffee drinks of Papazian using coffee produced by the coffee process of Rizzi et al because alcoholic beverage producers have traditionally added a wide variety of flavors, including coffee, to produce drinks with novel flavors and tastes.

Applicants respectfully traverse the rejection because the cited references fail to teach each and every claimed limitation and also fail to suggest or motivate one of ordinary skill to make the presently claimed invention. In particular, neither Papazian nor Rizzi et al. disclose brewing an alcoholic beverage from an extraction residue of coffee grounds remaining after roasted coffee grounds are extracted with water and alcohol. Similarly, the cited references also fail to suggest that said extraction residue would be suitable for producing a coffee flavored alcoholic beverage.

Turning to the rule, the Federal Circuit held that a *prima*

*facie* case of obviousness must establish: (1) some suggestion or motivation to modify the references; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all claim limitations. Amgen, Inc. v. Chugai Pharm. Co., 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970).

However, even if a *prima facie* case of obviousness has been established, secondary considerations such as commercial success, long felt but unsolved need, failure of others, and unexpected results may nevertheless give rise to a patentable invention. Graham v. John Deere Co., 148 U.S.P.Q. 459 (1966). For example, evidence such as superiority in a property the compound shares with the prior art can rebut a *prima facie* case of obviousness. See In re Chupp, 816 F.2d 643, 646, 2 USPQ2d 1437, 1439 (Fed. Cir. 1987).

In the present application, independent claim 1 recites a method of making a coffee flavored alcoholic drink made from

an extraction residue remaining after roasted coffee beans are extracted with hot water or with an aqueous solution of alcohol,

adding a saccharide to the extraction residue of roasted coffee beans and fermenting the resulting mixture in the presence of wine yeast.

However, nowhere does either of Papazian or Rizzi et al.

disclose brewing an alcoholic beverage from an extraction residue of spent coffee grounds remaining after roasted coffee grounds are extracted with water and alcohol. As acknowledged by the Examiner in Paper no. 7, paragraph 13, Papazian does not teach further extraction of coffee flavors and aromas from spent coffee grounds. Moreover, one of ordinary skill would have absolutely no motivation to use spent grounds insofar as it well known in the art that coffee beans rapidly lose their flavor after exposure to atmosphere, moisture, hot ambient temperatures, and time.

Rizzi et al. also fails to teach this critical limitation. Although Rizzi et al. does indeed teach that defatted coffee grounds can be used to absorb bitter coffee flavors, this simple disclosure would not have motivated one of ordinary skill to produce alcoholic coffee flavored drinks from **spent** coffee grounds. Contrary to the Office Action's assertion, there simply is no motivation to use defatted grounds which are already lacking in flavor.

Coffee grounds and beans rapidly lose their flavor subject to any extraction process because coffee aroma and flavor are of a complex and unstable composition. Therefore, patents such as the enclosed U.S. Patent No. 6,337,098 ("Spencer et al.") have devised numerous methods of preserving coffee flavor and aroma.

The first and most volatile elements that diminish during the

coffee staling process are those that create its aroma. So called aromatics are sulfurous compounds that are highly reactive in an oxygen atmosphere. In fact, changes in the chemical composition of coffee caused by oxidation are one of the main factors responsible for quality loss in coffee beans or grounds.

Exposure of coffee to air also causes rapid staling. Staleness caused by oxidation can be detected by simple tasting, when compared to a freshly ground coffee. Moreover, staling of coffee grounds is five to ten times faster than that of coffee beans.

Ground coffee, when exposed to oxygen in our atmosphere, loses a notable level of aroma within 15 minutes and will stale to the point that it has lost most of its fresh coffee smell within hours. Furthermore, exposure to contaminants, (especially oxygen and water), high ambient temperatures, and extreme temperature fluctuations can all diminish coffee flavor.

Therefore, one of ordinary skill in the art would have had absolutely no motivation or suggestion to re-use extraction residues of spent coffee grounds that have been subjected to the exposure to atmosphere, moisture, and hot ambient temperatures characteristic of hot water and/or ethanol extraction. As noted numerous times, spent coffee grounds are simply discarded as waste products due to the understanding that extraction residues are

completely devoid of coffee flavor.

Regarding the Office Action's application of In Re Levin, Applicants note that the facts are distinguishable. 84 U.S.P.Q. 232. In particular, the presently claimed method of producing a rich coffee flavored alcoholic beverage from waste products constitutes a new, unexpected and useful function. Moreover, Applicants note that the presently claimed method of claim 16 is not a simple recipe for cooking food which involves addition or elimination of common ingredients but rather a method for re-using waste products.

Therefore, each and every claimed limitation is not taught nor suggested by the cited references and a *prima facie* case of obviousness does not exist against the presently pending claims.

Accordingly, Applicants respectfully submit that the presently claimed invention is not obvious and request the Examiner to reconsider and withdraw the rejections under §103(a).

2. Rejection of Claim 11  
under 35 U.S.C. §103(a)

The Office Action states that claim 11 is rejected over Papazian in view of Rizzi et al. and in further view of U.S. Patent No. 3,845,220 ("Suzuki") for the reasons set forth in the last Office Action. As noted *supra*, Paper no. 7 states:

Papzian in view of Rizzi et al teach that cited above but do not disclose the addition of a hydrolase. Suzuki teaches the addition of an enzyme, such as a protease, amylase, cellulase, hemicellulase and pectinase to modify the foaming properties of a coffee carbonated beverage. It would have been obvious to those of ordinary skill in the art to add a hydrolase as done by Suzuki to the alcoholic beverages of Papazian in view of Rizzi et al because it is modifying a result effective variable that is beneficial to the foaming properties of the beverages.

As noted *supra*, Applicants respectfully traverse the rejection because the primary references Papazian and Rizzi et al. fail to teach each and every claimed limitation and also fail to suggest or motivate one of ordinary skill to make the presently claimed invention. The above arguments of paragraph 1 are hereby incorporated by reference in response to the rejection over claim 11.

In the present application, dependent claim 11 recites a method of making a coffee flavored alcoholic drink as recited in claim 1 further comprising the step of incubating the residue extraction in the presence of hydrolase. However, none of the cited Papazian, Rizzi et al. or Suzuki references disclose brewing an alcoholic beverage from an extraction residue of spent coffee grounds remaining after roasted coffee grounds are extracted with water and alcohol as recited in the limitations of parent claim 1.

As acknowledged by the Examiner in Paper no. 7, paragraph 13,

Papazian does not teach further extraction of coffee flavors and aromas from spent coffee grounds. Rizzi et al. similarly fails to teach this critical limitation.

Since each and every claimed limitation of claim 11 is not taught or suggested by the cited references, a *prima facie* case of obviousness does not exist against presently pending claims.

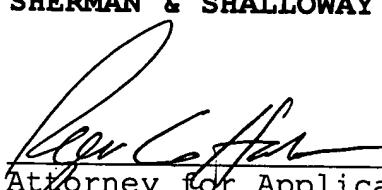
Accordingly, Applicants respectfully submit that the presently claimed invention is not obvious and request the Examiner to reconsider and withdraw the rejection to claim 11 under §103(a).

#### **CONCLUSION**

In light of the foregoing, Applicants submit that the application is now in condition for allowance. The Examiner is therefore respectfully requested to reconsider and withdraw the rejection of the pending claims and allow the pending claims. Favorable action with an early allowance of the claims pending is earnestly solicited.

Respectfully submitted,

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